

What Is Claimed Is:

- 1 A computer implemented method of enabling an object-oriented application to access in an object-oriented manner a procedural operating system having a native procedural interface during run-time execution of the application in a computer having a memory component, the method comprising the steps of:
  - 5 (a) locating in the application an object-oriented statement which accesses a service provided by the operating system;
  - 7 (b) translating the object-oriented statement to a procedural function call compatible with the native procedural interface of the operating system and corresponding to the object-oriented statement; and
  - 10 (c) executing in the computer the procedural function call to thereby cause the operating system to provide the service on behalf of the application.
- 1 2 The method of claim 1 in which an object-oriented class library includes related object-oriented classes having class methods for accessing services provided by the operating system using procedural function calls compatible with the native procedural interface of the operating system, wherein the object-oriented statement located in the application is defined by the class library, further comprising the step of storing in the memory component a code library comprising computer program logic implementing the object-oriented class library.
- 1 3 The method of claim 2, wherein step (b) comprises the steps of identifying one or more methods in the class library corresponding to the object-oriented statement, and copying the identified methods to a portion of virtual memory in the computer previously allocated to the application, and wherein step (c) comprises the step of executing the identified methods.

4 An apparatus for enabling an object-oriented application to access in an object-  
5 oriented manner a procedural operating system having a native procedural  
6 interface, the apparatus comprising:

- 7     a) a computer;
- 8     (b) a memory component in the computer;
- 9     (c) a code library, stored in the memory component, comprising computer program  
10 logic implementing an object-oriented class library, the object-oriented class  
11 library comprising related object-oriented classes for enabling the application to  
12 access in an object-oriented manner services provided by the operating system,  
13 the object-oriented classes comprising methods for accessing the operating  
14 system services using procedural function calls compatible with the native  
15 procedural interface of the operating system; and
- 16     d) means, in the computer, for processing object-oriented statements contained in  
17 the application and defined by the class library by executing methods from the  
18 class library corresponding to the object-oriented statements.

- 1     5. The apparatus of claim 4, wherein the means for processing the object-oriented  
2 statements operates in the computer during run-time execution of the  
3 application.

6. A computer implemented method of enabling an object-oriented application to access in an object-oriented manner a procedural operating system having a native procedural interface during run-time execution of the application in a computer having a memory component, in which an object-oriented class library comprises related object-oriented classes having class methods for accessing services offered by the operating system using procedural function calls compatible with the native procedural interface of the operating system, the application including object-oriented statements defined by the class library to access the operating system services, the method comprising the steps of:
- 10 (a) storing in the memory component a code library comprising computer program logic implementing the object-oriented class library; and
- 11 (b) processing the object-oriented application in the computer by executing methods from the class library corresponding to the object-oriented statements in the application.

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8 An apparatus for providing an object-oriented interface to a procedural  
9 operating system having a native procedural interface, the apparatus  
10 comprising:

11 a) a computer;

12 (b) a memory component in the computer; and

13 (c) a code library, stored in the memory component, comprising computer program  
14 logic implementing an object-oriented class library, the object-oriented class  
15 library comprising related object-oriented classes for enabling an object-oriented  
16 application to access in an object-oriented manner services provided by the  
operating system, the object-oriented classes comprising methods for accessing  
the operating system services using procedural function calls compatible with  
the native procedural interface of the operating system; wherein object-oriented  
statements defined by the object-oriented class library are insertable into the  
application to enable the application to access in an object-oriented manner the  
operating system services during run-time execution of the application in the  
computer.

8 A computer program product, adapted for use with a computer comprising a procedural operating system having a native procedural interface, the computer program product comprising:

9     (a) a storage medium readable by the computer; and

10    (b) a code library, stored in the storage medium, comprising computer program logic implementing an object-oriented class library, the object-oriented class library comprising object-oriented classes for enabling an object-oriented application to access in an object-oriented manner services provided by the operating system, the object-oriented classes comprising methods for accessing the operating system services using procedural function calls compatible with the native procedural interface of the operating system;

11    (c) wherein object-oriented statements defined by the object-oriented class library are insertable into the application to enable the application to access in an object-oriented manner the operating system services during run-time execution of the application in the computer.

1     4. A computer implemented method of enabling a procedural application to access in a procedural manner an object-oriented operating system having a native object-oriented interface during run-time execution of the application in a computer, the method comprising the steps of:

2     (a) locating in the application a procedural statement which accesses a service provided by the operating system;

3     (b) translating the statement to an object-oriented function call compatible with the native object-oriented interface of the operating system and corresponding to the procedural statement; and

4     (c) executing in the computer the object-oriented function call to thereby cause the operating system to provide the service on behalf of the application.